

New Instruments -- New Notation

Create an original NEW INSTRUMENT [no altered existing instruments or existing instrument parts, please!]

Write a composition exactly 89 seconds in length for your new instrument. Use the Fibonacci Series in as many ways as possible (numbers of tones, measures, beats, textures, timbres, number of strings or other components, etc.) in your composition.

Fibonacci Series: 1 : 1 : 2 : 3 : 5 : 8 : 13 : 21 : 34 : 55 : 89 : 144 etc.

Score your composition, creating new non-traditional notation if necessary. You may want to choose a timeline of seconds, rather than measures and beats.

If you create new notation for this composition and instrument, please make a guide sheet to explain the symbols and what they mean. The goal is to communicate your ideas on paper so that someone else may play your composition in this new notation on this new instrument.

Perform your composition in class on ~~Monday, Feb. 16th~~. [Students who do not perform on Monday will receive a 0 on this assignment.]

After your performance, please turn in your composition and guide sheet.

Grading:	Instrument	50 points
	Score	10 points
	Performance in class	20 points
	Use of Fibonacci series	20 points

Musicians Hammer Out New Tune on Cables of the Golden Gate

SAN FRANCISCO (AP) – Computer musicians who wrote the Golden Gate Bridge Suite wanted something grand to mark the span's 50th anniversary in May, [1987] so they decided to play the 9,266-foot bridge like a harp.

The Golden Gate is the second longest suspension bridge in the country, but it may be the world's largest musical instrument. "It appeals to our sense of wonder," said Doug McKechnie, who used the span's 500-foot support cables to make music. "It is a little silly, but it is also very scientific. We are bridging the gap between music and technology," he said.

McKechnie and the three other members of the San Francisco Synthesizer Ensemble hit the cables with wooden mallets and recorded what they heard. Using computers and synthesizers, they merged the sound with foghorns, Pacific Ocean surf and the cries of gulls. The result was a 16-minute suite in four parts composed for the bridge's birthday party. They used suspender cables, which are attached to the main cables and hold up the bridge.

Bridge officials refused the group's first request for permission to play the bridge. "We had just painted the cables," bridge manager Robert Warren said. "I thought they might chip the paint." But McKechnie told Warren they were making a film and assured him they would only simulate hitting the cables. Warren took them at their word.

"I lied in the interest of innovation," McKechnie admits.

= = = = =

Minnesota Hears New Sounds

MINNEAPOLIS, MN (AP) Composer Stephen Paulus wrote an overture for four construction workers, each playing two tools. The 45-instrument Minneapolis pops orchestra, conducted by Jere Lantz of the Rochester Symphony, accompanied the workers in the overture's world premiere.

"It's really upbeat, energetic, rhythmic. It's meant to be celebratory in nature," said Paulus, who recently finished a four-year stint as composer-in-residence with the Minnesota Orchestra. However, Paulus recommends that his piece be performed in the open, as in its debut, rather than in a concert hall. Although the tools are not amplified, he said, "I think it would be just too loud."

Although previous avant-garde compositions have featured airplane propellers or linotype machines, Paulus said he believes his is one of the first to incorporate construction tools. The nail gun has a "punctuating, sporadic" sound, while the trowel, which opens the piece has "sort of a nice swoosh, swoosh, swoosh," Paulus said.

At times, the tools perform a duet with the musical instruments, such as when a metal grinder comments after a trio of trombones performs, the composer

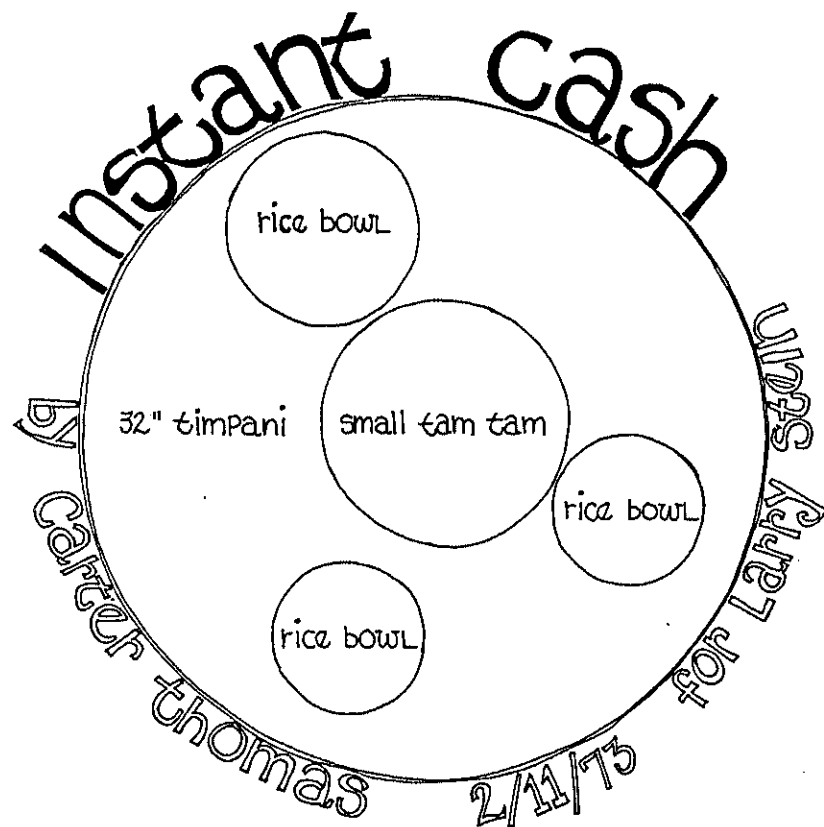
said. "Admittedly, people can think of this as a tongue-in-cheek piece but basically it's a serious, fun piece of music," Paulus said.

In addition to the construction workers, a percussionist performs on a "weldophone." Paulus and the percussionist, David John Olsen, invented the instrument, which consists of 17 welding caps of different diameters struck by a bolt. The sound, according to Paulus, is a cross between a xylophone and a glockenspiel.

"When I was touring one of the sites, I dropped something on a metal plumbing fixture and it made a wonderful sound. And I said, 'Can I use that?' and they said, 'Why not?'" Paulus said.

The construction workers don't read music, but instead follow cues from the conductor. The piece was performed for the first time at a rehearsal Tuesday night. "The construction guys caught on really quickly and are doing quite well," Paulus said.

Wednesday's premiere performance launches construction work on a 12-acre development which will include shops, restaurants, office buildings, and a hotel in St. Louis Park, Minneapolis.



instructions

Cash needed: 17 Pennies
12 nickels
9 dimes
10 Quarters
5 half dollars
2 silver dollars

- 1) Use 32" timpani, 3 different sized rice bowls, 1 small tam tam or Gong.
- 2) Player strikes timpani with hands, or sticks of his choice.
- 3) Player continues to depress pedal at whatever rate he pleases.
- 4) While doing this, the Player should drop coins one at a time (any order of coins) into a rice bowl or tam tam of his choice and improvise freely.
- 5) anytime after all the coins are dropped, the piece may end.

THE BANSHEE (piano)

Henry Cowell
(1925)

Tempo Rubato

The musical score for "The Banshee" by Henry Cowell is written on a single staff with a bass clef and a 2/2 time signature. The score is divided into several sections with tempo changes: "Tempo Rubato", "a tempo", "Faster", "Presto", "Slow", and "rit. molto". The score includes fingerings (A, B, C, D, E, F, G, H, I, J, K, L) and articulations (pizz., nail). The dynamics range from pp to ppp. The score ends with a "ppp" marking.

Copyright 1930 by W. A. Quincke & Company, Los Angeles, California
Copyright renewed 1958 by Henry Cowell
Copyright renewed 1959 to Associated Music Publishers, Inc., New York
All rights reserved, including the right of public performance for profit.

The Banshee

Henry Cowell

Explanation of Symbols

"The Banshee" is played on the open strings of the piano, the player standing at the crook. Another person must sit at the keyboard and hold down the damper pedal throughout the composition. The whole work should be played an octave lower than written.

R. H. stands for "right hand." L. H. stands for "left hand." Different ways of playing the strings are indicated by a letter over each tone, as follows:

- (A) indicates a sweep with the flesh of the finger from the lowest string up to the note given.
- (B) sweep lengthwise along the string of the note given with flesh of finger.
- (C) sweep up and back from lowest A to highest B-flat given in this composition.
- (D) pluck string with flesh of finger, where written, instead of octave lower.
- (E) sweep along three notes together, in the same manner as (B).
- (F) sweep in the manner of (B) but with the back of finger-nail instead of flesh.
- (G) when the finger is half way along the string in the manner of (F), start a sweep along the same string with the flesh of the other finger, thus partly damping the sound.
- (H) sweep back and forth in the manner of (C), but start at the same time from both above and below, crossing the sweep in the middle.
- (I) sweep along five notes, in the manner of (B).
- (J) same as (I) but with back of finger-nails instead of flesh of finger.
- (K) sweep along in manner of (J) with nails of both hands together, taking in all notes between the two outer limits given.
- (L) sweep in manner of (C) with flat of hand instead of single finger.

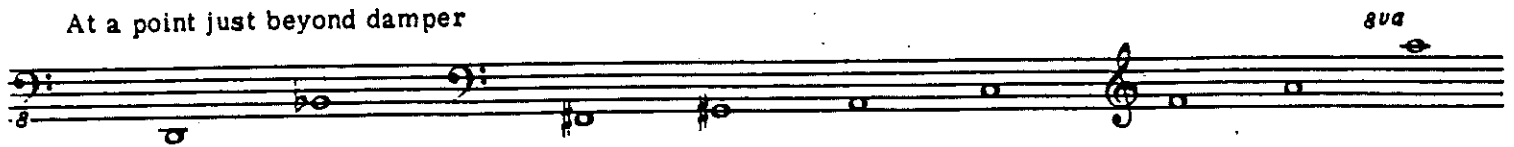
TABLE OF PREPARATIONS

FELT STRIPS
(Springrail Felt)



At a point just beyond damper

Poke felt down between strings with tip of small screwdriver. "Springrail felt" is available from any piano technician or piano supply company.



Clothespin
wedges
at 1/4 node



Notch each
wedge at
point of
string contact

Rubber
erasers
at 1/3 node



Slit eraser sleeve with
knife; pinch together;
insert onto strings



Screws
#10x3"
at 1/4 node

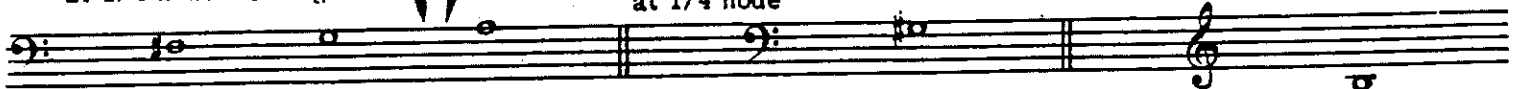
Screw
gently
between
strings



Screws
#10x1 1/4"
at 1/4 node



Screws with
washer #10x1"
at 1/4 node



DIMES
At 1/3 node

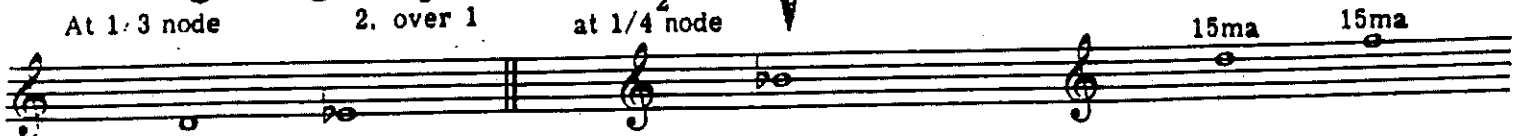


Gently weave
from right to
left: over
string 3, under
2, over 1

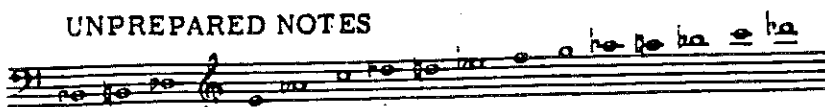
Screw
#12x1 1/2"
at 1/4 node



VINYL
TUBING 1"x3/8"OD
at point of max. resonance



UNPREPARED NOTES



For additional preparation information consult articles by the composer in CONTEMPORARY KEYBOARD magazine July and August 1977. Also, R. Bunker: THE WELL-PREPARED PIANO, Colorado College Music Press, 1973.

HENRY COWELL'S PIANO EFFECTS

Aeolian Harp
Tides of Manaunaun
The Banshee
Tiger

1. direct manipulation of strings, by hand or mallet
2. tone clusters -- flat hand, fist, 1 or 2 forearms -- "Tiger"
3. press keys (no sound) -- play directly on strings at the same time
4. play with back of fingernail on strings
5. play with flesh of finger
6. sweep fingers or nails up or down along an individual string
7. cross sweeps over multiple strings, up or down in pitch
8. alter timbre by manipulating strings with fingers -- touch nodes, stop overtones

PROFILE

Cowell, Henry (Dixon) (b. Menlo Park, Calif., 11 March 1897; d. Shady N.Y., 10 Dec. 1965). He was an American composer, pianist and writer on music.

He was recognized all over the world as a pioneer, ethnomusicologist and inventor of a new musical technique and notation.

His formal training in music with Charles Seeger and his studies with Samuel Seward (a professor of English) led to the book New Musical Resources. It was written between 1916 and 1919 and revised before its publication in 1930.¹

Godwin, Joscelyn, Roland (b. Kelmscott, Oxon UK., 16 Jan. 1945)

She is a musicologist, educator.

She has degrees from Magdalene College, Cambridge University, and a Ph.D. from Cornell University. (She is listed in the International Who's Who of Musicians, IBC/Grand River Publication.)

1. Bruce Saylor: "Henry Cowell", The New Grove Dictionary of Music and Musicians, 6th ed., Ed. by Stanley Sadie, Macmillan, 1980

be realized in even a modestly equiped sound lab. Practically speaking it is very difficult to imagine a solo or group situation playing so flawlessly in rhythm, dynamics, pitch and tempo that gives so true an aural perception that the principals Cowell proposes emerge and are consciously heard.

Therefore can a musical art that can only be imperfectly realized be effectively or honestly considered for preference ?

The purpose of New Musical Resources is, in Cowell's words:

..."to point out the influence the overtone series has exerted on music throughout its history, how many musical materials of all ages are related to it, and how, by various means of applying its principals in many different manners, a large palette of musical materials can be assembled."

He proceeds to illustrate how this can theoretically be accomplished. The elements of tempo, metric accent, intervalic function and chord combinations are presented in a system of measure that corresponds to ratios similar in the overtone series. His principals for constructing tone-clusters and polychords are given in detail.

He presents his own notation of note shapes that display, accurately, a division of beat¹. Graphic diagrams are given to indicate the acceleration of simultaneous voices traveling at a different rate of speed. (The intervalic differential of speed can be set at ratios that correspond to the overtone series. Therefore relating motion, and other elements as well, to a given fundemental tone.)

1. See page 58. A 3rd note $\triangle$, 5th note $\square$, 7th note $\diamond$, etc. .

Re: VIDEO

Credits

Executive Producer

Gladys Carter

Producer/Director

Walter Simmons

Musicians Interviewed

Skip La Plante

Composer, Instrument Builder

Bill Buchen

Sound Artist

Johnny Reinhard

Director, American Festival of Microtonal Music

Dean Drummond

Composer, Percussionist, Instrument Builder

Acknowledgments

Music for Homemade Instruments

Sound Creations produced by Ken d'Oronzio
(interview excerpts)

The Dreamer that Remains: A Portrait of Harry Partch
New Dimension Films

©1989 Educational Audio Visual Inc.
17 Marble Avenue, Pleasantville, N.Y. 10570
Library of Congress Catalog No. 89-700168

NOTICE: This work is copyrighted and may not be transmitted,
copied, recast, transformed, or adapted in whole or in part without
a license.

All rights reserved.

Harry Partch and his Strange Musical Instruments

time—21:15

This video program introduces viewers to one of the twentieth century's most visionary and iconoclastic musicians: Harry Partch, a Californian who lived until the mid 1970s and whose ideas of music went beyond the capabilities of conventional western instruments.

The program begins at a concert where musicians influenced by Partch are performing a work by a member of the group, Music for Homemade Instruments. Brief interviews follow with composers and instrument builders who talk about Partch's importance to and influence on them.

The main part of the program is devoted to excerpts from the film *The Dreamer That Remains: A Portrait of Harry Partch*, which presents the composer talking about his goals and ideals along with performances of his music on the instruments he designed and built.

The Music

The work that I have been doing these many years parallels much in the attitudes and actions of primitive man. He found sound-magic in the common materials around him. He then proceeded to make the vehicle, the instrument, as visually beautiful as he could. Finally, he involved the sound-magic and the visual beauty in his everyday words and experiences, his ritual and drama, in order to lend greater meaning to his life. This is my trinity: sound-magic, visual beauty, experience-ritual. —Harry Partch

The twentieth century has produced many composers who fashioned themselves iconoclasts or radicals. Few have taken a route as isolated as Harry Partch, who renounced not only the conventional styles of Western music, but also its instruments, its tuning system, and its fundamental aesthetic assumptions. Partch acted from the deep conviction that there is an important alternative to the basic premises and definitions upon which Western art music is predicated.

The key feature of traditional music against which Partch reacted is what he termed "Abstractionism," or the perception of music as a pure, autonomous structure. This is the fundamental principle underly-

ing the German classical tradition, epitomized by the music of Bach and, to some extent, implicit in most "classical" music. In contrast, Partch proposed the principle of "Corporealism," by which he meant a kind of expressive chanting based on speech inflections, uniting the singer and the words into an organic whole. His ideal was "a manner of impressing the intangible beauty of tone into the vital power of the spoken word, without impairing either."

Partch found precedents for this ideal in ancient Greek drama, early Florentine opera, and much of the world's folk music. But he felt that the Western art music tradition, under the influence of Christianity, had suppressed this organic "Corporeal" ideal by isolating the abstract or "spiritual" qualities of music from the human beings who created it.

As Partch sought to develop an appropriate musical language through which to realize his ideal, he was frustrated by the inadequacy of equal temperament—the piano scale, which consists of twelve equidistant pitches. In order to achieve the subtle inflections required for the type of music he envisioned, he needed a means of producing minute divisions of pitch, called microtones. Since most conventional instruments are incapable of producing these subtle pitch distinctions, Partch began to design and build instruments himself.

I am not an instrument builder, but a philosophic music man seduced into carpentry.

Over a period of forty years, Harry Partch created approximately thirty different mostly stringed or percussion instruments, designed according to a tuning system of forty-three tones to the octave. Not only do these instruments, built from an extraordinary array of material, create a wealth of captivating sonorities, but they are constructed to evoke a visual response as well, further illustrating the organic notion of Corporeality.

For obvious reasons, the opportunity to hear a performance of Harry Partch's music was rare indeed. Not only did musicians have to undergo long and arduous apprenticeships to learn how to play his instruments, but the size and delicacy of the instruments made them all but untransportable. Consequently, Partch's reputation grew very slowly. Yet, during the last years of his life, he began to receive recognition, and today he is considered one of the most profound and far-reaching musical visionaries of our time. The noted critic Jacques Barzun has called Partch's work "the most original and powerful contribution to dramatic music on this continent."

Despite the small number of performances of Partch's music that have taken place, posterity is fortunate that Partch recorded much of his own music and that several excellent films have been made about the man himself and as documents of some of these performances.

In 1973, the film excerpted in this program—*The Dreamer That Remains: A Portrait of Harry Partch*—was produced by Whitelight-Tantalus Productions, under the direction of Stephen Pouliot. In addition, film-maker Madeline Tourtelot produced six films based on Partch's compositions: *Windsong*, *Music Studio—Harry Partch*, *Rotate the Body*, *Revelation in the Courthouse Park*, *U.S. Highball*, and *Delusion of the Fury*.

Another invaluable source of information concerning Partch and his music is his own book, *Genesis of a Music* (New York: Da Capo Press, 1974), which contains one of the most lucid, challenging, and articulate aesthetic manifestoes ever penned by a composer. Also included are exhaustive explanations of the acoustical rationales upon which Partch's concepts of intonation are based.

notes by Walter Simmons

1/1: Monophony the unison; unity; the Prime Unity; the generating concept from which the expanded system of music here presented takes its name

2/1: the "octave" ; this symbol is used throughout without translation into conventional nomenclature

3/2: the just "perfect fifth"

4/3: the just "perfect fourth"

5/4: the just "major third"

6/5: the just "minor third"

7/6: the septimal "minor third"

5/3: the just "major sixth"

8/5: the just "minor sixth"

12/7: the septimal "major sixth"

9/8: the large just "whole tone," or "major second"

10/9: the small just "whole tone," or "major second." This ratio and the ratio above are confounded in tempered theory

8/7: the septimal "major second"

16/9: the small just "minor seventh"

9/5: the large just "minor seventh"

This ratio and the ratio above are confounded in tempered theory.

7/4: the septimal "minor seventh"

16/15: the large just "semitone," or "minor second."

25/24: the small just "semitone," or "minor second."

This ratio and the ratio above are confounded in tempered theory

15/8: the small just "major seventh."

48/25: The large just "major seventh "This & above ratio confounded in tempered theory

45/32 and 64/45: generally considered to be the just "tritones."

7/5 and 10/7: the septimal "tritones."

1/1-392: the "G" which is in the scale of "A" at about 440 cycles;

1/1-392 is simply a starting point for pitch measurement, above and below, such as "middle C."

7-White--5-Black: a term used to denote the key or digital pattern of all present-day popular keyboard instruments.

Arithmetical Proportion: an ancient principle of scale structure by which a sounding body is divided into a number of exactly equal parts, and a scale constructed from the resulting relationships, or ratios; this does not produce equal scale steps.

Cents: a system devised by Alexander J. Ellis for quickly determining the width of a musical interval; a cent is the hundredth part of one of the twelve equal intervals between degrees in a 2/1 (octave) of Equal Temperament; therefore, 1200 cents to the 2/1 (octave)

Complement: that ratio which, added to another ratio (multiplied), makes 2/1; for example, 4/3 is the complement of 3/2: $4/3 \times 3/2 = 2/1$; in conventional terms, the "inversion" of an interval - a "perfect fourth" is the inversion of a "perfect fifth."

Harmonical proportion (Geometric Proportion): that monochord procedure by which intervals are determined by the relation of the whole string to the half, the half to the third, the third to the fourth, the fourth to the fifth, and the fifth to the sixth, or 2 to 3, 3 to 4, 4 to 5, 5 to 6, etc. It is possible to determine the tones corresponding to the overtone series by this procedure, and in this sense the lower "overtones" delineate Otonality ("major tonality")

Identity: one of the correlatives, "major" or "minor," in a tonality; one of the odd-number ingredients, one of several or all of which act as a pole of tonality; 1-3-5-7-9-11 in this theory. This term is not to be confused the ingredients of Harmonic Content, or with Partial.

Interval: a pitch relation between two musical sounds, a ratio. Interval, ratio, tone, are virtually synonymous in this exposition; a ratio is at one and the same time the representative of a tone and of an interval, and a tone always implies a ratio, or interval

Piano Keyboard Cents on the piano keyboard

do	G	= 0
	Ab	= 100
re	A	= 200
	Bb	= 300
mi	B	= 400
fa	C	= 500
	C#	= 600
sol	D	= 700
	E b	= 800
la	E	= 900
	F	= 1000
ti	F#	= 1100
do	G	= 1200

Key of "G" Equal Temperament

Interval	Ratio
"G"	1/1 unison
"G to Ab"	16/15 (-15 cents)
"G to A"	9/8 (- 4 cents) or 10/9 (+ 18 cents)
"G to Bb"	6/5 (-16 cents) or 7/6 (+33 cents)
"G to B"	5/4 (+ 14 cents)
"G to C"	4/3 (+ 2 cents)
"G to C#"	7/5 (+ 17.5 cents) or 10/7 (-17.5 cents)
"G to D"	3/2 (-2 cents)
"G to Eb"	8/5 (-14 cents)
"G to E"	5/3 (+16 cents) or 12/7 (-33 cents)
"G to F"	16/9 (+4 cents)
"G to F#"	15/8 (+12 cents)
"G to g"	2/1 Octave

Lower
3/1

4 - 3 p4	5 - 3 M 6	3 - 3 p prime
8 - 5 m 6	5 - 5 prime	6 - 5 m 3
1 - 1 prime	5 - 4 M 3	3 - 2 p 5

3/1
x head

Higher
3/1

→ maj 3rd

8 - 7	9 - 7	10 - 7	11 - 7	12 - 7	7 - 7 Prime
4 - 3 (P4)	9 - 6 P5	5 - 3 (M6)	11 - 6	3 - 3 (Prime)	7 - 6
16 - 11	18 - 11	20 - 11	11 - 11 Prime	12 - 11	14 - 11
8 - 5 m6	9 - 5	5 - 5 (Prime)	11 - 10	6 - 5 (m3)	7 - 5
16 - 9	9 - 9 Prime	10 - 9	11 - 9	12 - 9 p4	14 - 9
1 - 1 (Prime)	9 - 8	5 - 4 (M3)	11 - 8	3 - 2 (P5)	7 - 4

New Instrument

Name _____

Instrument

Score

(includes guide/explanation sheet)

Performance in class

Use of Fibonacci series



IN CONCERT

3-27-97



DEAN DRUMMOND, left, and his wife, Stefani Starin, formed Newband, which has been a at the forefront of the microtonal movement. He is also caretaker of a collection of instruments built by eccentric composer Harry Partch, including ones made from artillery shells and lightbulbs.

Make room for new music

By CHANNING GRAY
Journal-Bulletin Arts Writer

IN THE STRANGE underground world of microtonal music, Dean Drummond might be thought of as the Itzhak Periman of the zoomoozophone.

If the zoomoozophone is not an instrument you remember from high school band, that is because Drummond concocted it to produce the curious sounds of his avant-garde compositions, many of which use microtonal scales chopped into far smaller divisions than the traditional seven-note scale of most Western music.

Drummond's unusual addition to the percussion family is based on a 31-note scale. Its 129 aluminum tubes can be played by one or more musicians. Place its five sections end to end and they would span more than 20 feet.

Drummond is also caretaker of an oddball collection of instruments built by Harry Partch, the eccentric American composer



NEW ENGLANDERS will get their first chance to hear Partch's instruments live when Newband brings them to Rhode Island College this week.

who lived on the fringes of society while developing his own curious musical language.

This week New Englanders will get their first chance to hear live Partch's instruments when Drummond and his ensemble bring them to Rhode Island College. Newband, sporting instruments made from driftwood, artillery shells and light bulbs, will give a free demonstration tomorrow night at 8, then perform Partch's music along with other composers' works Wednesday night at 9.

New music fans along with the curious can also drop in on a free open rehearsal Wednesday afternoon at 3.

Partch's instruments, which are on permanent loan from the composer's estate and housed at the State University of New York in Purchase, don't get out much, said Drummond, maybe four or five times a year. They are hard to lug about, for one thing. It will take a moving van and tie up a tech crew for

Turn to **NEWBAND**, next page

Three-course meals for Fido?

And that's just one of the new ideas for furry friends

News clippings and pet-related press releases are starting to pile up on the corner of my desk reserved for this purpose. I must have just fish out a few of the more eye-catching items for a Pet Beat round-up...

Providence's Barry Fain is on the board of directors of Prime Creations, a Pennsylvania-based



PET BEAT
By Peter Mandal



Greater Boston (cc)	Are You Being Served? Unhappy and 8:30 a.m.	
CBS News (cc)	Entertainment Tonight Independent films. (cc)	
Inside Edition Shuntwoman lawsuit. (cc)	Chronicle (cc)	
Seinfeld Jerry meets with network bigwigs. (cc)	Mad About You Paul and Jamie at country inn. (cc)	
Wheel of Fortune (cc)	Jeopardy! (cc)	
Inside Edition Shuntwoman lawsuit. (cc)	Entertainment Tonight Independent films. (cc)	
Wheel of Fortune (cc)	Jeopardy! (cc)	
Jack Benny	Hopalong Cassidy	
Home Improvement Mark is accused of stealing. (cc)	Home Improvement Tim blows up a building. (cc)	
Bend Sin Mendra		
Nightly Business Report Tax Facts. (cc)	MotorWeek The Audi A8 sedan, Jeep Cherokee. (cc)	T D
Seinfeld Jerry meets with network bigwigs. (cc)	Bruins Hockey Bo	
NewsHour with Jim Lehrer (cc)		Fi Ch bo
Live From the Academy Awards Pre-Oscars cover		
Simpsons Homer is sent to big leagues. (cc)	Home Improvement Tim blows up a building. (cc)	Co ref (cc)
Baywatch A teenage girl tries to impress her peers by claiming Eddie seduced her. (Part 1 of 2) (cc)		
7:00	7:30	
Law & Order An emergency room death may be due to negligence. (cc)		Blot Fries
Wood? (1932) Constance Bennett. Lowell is hits the top while her meritor hits the bottle. Hit List		Plan Equi
Money Club Changes to the tax system.	Steals and Deals	
Moneyline (cc)	Crossfire (cc)	Prim
Daily Show (R)	TV Nation War re-enactment night.	Wild Deser
Wings The TBM Avenger is the last in a long line of torpedo bombers. (R)		
Academy Awards Preshow Interviews with nominees Shrine Auditorium.		
Women's College Basketball NCAA Tournament (cc)		

will be given out tonight to patrons Ch. 5, 6).

years before Buffett was granted his

Newband marches to its own Drummond

Continued from the cover

several days to cart them to Rhode Island.

Some are also fragile — such as the cloud-chamber bowls, made from 12-gallon glass containers used for experiments to chart the path of sub-atomic particles. Two have bro-

ken since the band inherited the collection. The bowls can be replaced, he said — at \$300 a pop.

"We're a production," said Drummond, who once served as Partch's assistant.

Drummond and his wife Stefani Starin formed Newband 20 years ago, after working with a new music group in Southern California. The band moved to New York in its second season and has been at the forefront of the microtonal movement.

Although the music world has gravitated toward more traditional sounds in recent years, Drummond

said students and young players still make pilgrimages to Purchase, where Newband is in residence, to learn about Partch's offbeat musical theories and tuning system.

Drummond is a leading expert in this area due to years of working with Partch, who died in the late 1970s. It was Drummond's high school trumpet teacher in southern California who told him he should give Partch a call.

He found the quirky composer living in a former laundromat in Venice, sleeping in the back behind the file cabinets. Partch's instruments sat on platforms once used for washers and driers.

"I walked into that room and was entranced," said Drummond, from his studio in Purchase. "I said, 'I'll do anything.'"

During his lifetime, part of which was spent riding the rails as a hobo, Partch built about 20 large-scale instruments and an array of smaller ones. Many have an Asian flavor and the graceful lines of sculpture.

Drummond started out playing the harmonic canon, an instrument with 44 strings and adjustable bridges. But the collection also contains gongs made from the nose cones of airplane fuel tanks, a host of marimbas and a "gourd tree," a dozen Chinese temple bells bolted to resonating gourds that are affixed to a eucalyptus bough.

Although Newband devotes much

of its energies to Partch's music, Wednesday it will also perform a piece by Drummond and music by jazz greats Thelonious Monk and John Coltrane.

Much of the band's music is laced with the haunting sounds of Japanese flutes, percussion effects and jazz licks.

Drummond, who survives largely by getting grants to write music, has built a couple of instruments but curtailed his efforts when Newband became curators of the Partch collection in 1990. The instruments were in pretty rough shape, he said, and have required a lot of restoration.

Now his mission is to use the instruments of his teacher to master Partch's music.

"I don't think Harry ever reached the level of performance we have," said Drummond. "He had to hire high school students. I have the first line of New York percussionists beating on my door."

"I'm also a very artistically ambitious person. My goal is to do it better."

Wednesday's concert, the open rehearsal and demonstration all take place in Roberts Auditorium on the Rhode Island College campus. Tickets for the concert are \$12, \$10 for seniors and RIC faculty and staff, \$5 for non-RIC students, and \$1 for RIC students. Call 456-8194.

HAPPY EASTER! Celebrate at Rhodes On The Pawtuxet

EASTER BRUNCH
11:00 AM or 1:00 PM
Breakfast Buffet Carving Stations
Fruit & Breakfast Pastry Table
Fabulous Dessert Table

Music by
JOHN WORSLEY
Only **\$19.95** Plus Tax
Children **\$11.95**
By Reservation Only
785-4333





Looking For Someone Special?

Look no further. Since 1989 hundreds of singles became couples through

TWO OF HEARTS
Call for a Free Compatibility Questionnaire
401-433-6880





CAMPS for BOYS and GIRLS

Rhode Island

Rhode Island

Sports Camps

THE PROVIDENCE

New ideas for furry friends

Continued from the cover

PET BEAT

Program

Elizabeth Brown "Archipelago" (1990/2)

Stefani Starin-flute, alto flute
John Whitfield-cello
Chris Oldfather-synthesizer

Dominic Donato-diamond marimba,
surrogate kithara, zoomoozophone

Michael Lipsey-zoomoozophone,
surrogate kithara

Dean Drummond-zoomoozophone

Thelonius Monk....."Round Midnight"

Arranged by Dean Drummond (1990/3)

John Whitfield-cello
David Cossin-zoomoozophone

Dominic Donato-zoomoozophone

Dean Drummond-zoomoozophone

Dean Drummond....."Before the Last Laugh" (1995)

Dean Drummond-conductor
Stefani Starin-flute
John Whitfield-cello
Chris Oldfather-synthesizer

Nina Kellman-harmonic canons
Michael Lipsey-harmonic canon
Frank Cassara-zoomoozophone, percussion
Dominic Donato-zoomoozophone,
percussion

Toru Takemitsu....."Toward the Sea III"

Stefani Starin-flute

Nina Kellman-harp

John Coltrane..... "Niama"

arranged by Dean Drummond

Stefani Starin-alto flute
Chris Oldfather-chromelodeon
Nina Kellman-harmonic canon,
chromelodeon

Dean Drummond-kithara
David Cossin-zoomoozophone
Dominic Donato-zoomoozophone

Harry Partch....."Castor and Pollux" (1952)

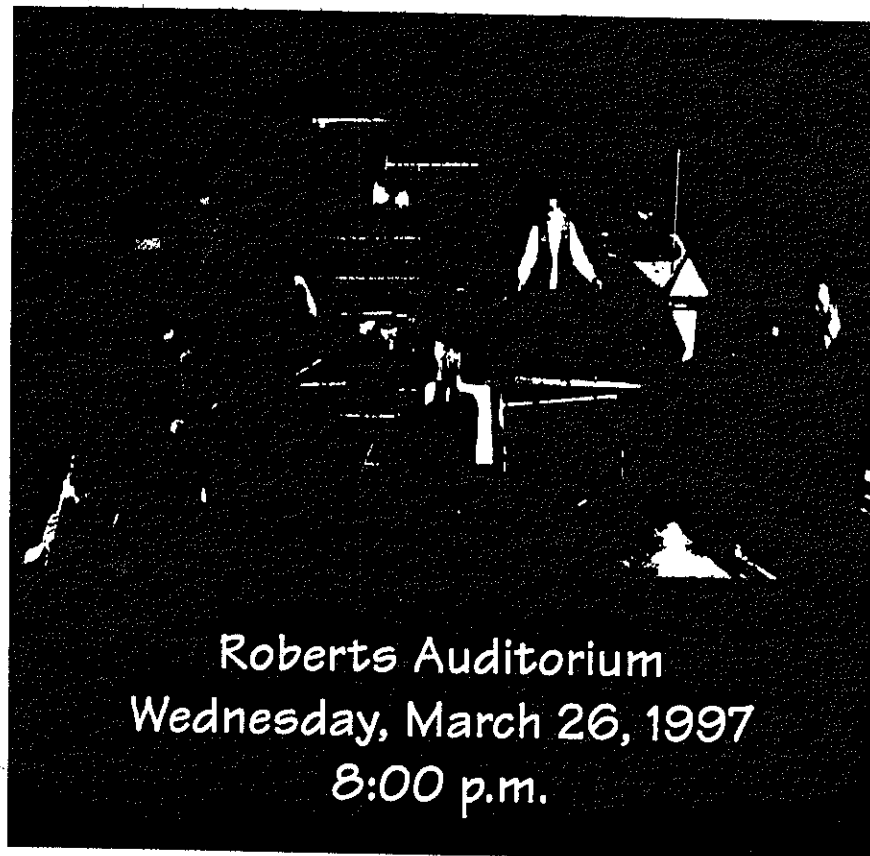
Dean Drummond-kithara
Stefani Starin-surrogate kithara
Nina Kellman-harmonic canon
Dominic Donato-diamond marimba

Michael Lipsey-bass marimba
David Cossin-bass marimba
Frank Cassara-cloud chamber bowls

A Celebration of the Arts '97!

Featuring...

newbano



Roberts Auditorium
Wednesday, March 26, 1997
8:00 p.m.

Newband Ensemble and Instrumentarium

Newband was founded in 1977 by composer Dean Drummond and flutist Stefani Starin who continue as Artistic Directors. With Drummond's invention of the 31-tone zoomoozophone in 1978, Newband began to explore music using alternative tunings as a large part of its repertoire that also included written scores and improvisation, from minimal to maximal music.

In 1990, Newband was loaned the Harry Partch Instrument Collection for a series of concerts at the Bang on a Can Festival and the loan was made permanent when Danlee Mitchell of the Harry Partch Foundation turned over custodianship of the entire collection to Dean Drummond, following Newband's acclaimed production of Partch's "The Wayward" directed by Tom O'Horgan, at the 1991 Bang on a Can Festival.

The ensemble has performed throughout the U.S. and Europe including at the New York Philharmonic Horizons New Virtuosity Series at Avery Fisher Hall, New Music America, the Library of Congress, Kennedy Center in Washington, Wexner Center for the Arts in Columbus, the Walker Art Center in Minneapolis and the La Mama Experimental Theatre in New York. Newband has premiered works by Harry Partch, Dean Drummond, John Cage, John Zorn, Ezra Sims, Joan La Barbara, Anne Le Baron, Lasse Thoresen, Elizabeth Brown, Lois V. Vierk, Julia Wolfe, Annea Lockwood, Mathew Rosenblum and numerous others; new works are on the way by Muhai Richard Abrams and George Tsontakis.

Newband has pursued many educational projects, including a three-year residency in the Nyack Public Schools and the creation of a new music children's show. Newband is currently Artist-in-Residence at Purchase College, State University of New York, sponsored in part by Chamber Music America Residency Grant.

The Harry Partch Instrument Collection is the largest component of the Newband Instrumentarium, including all of the instruments built by the composer-inventor during the period 1930-1974, as well as several instruments replicated by the Harry Partch Foundation between 1974 and 1984 and several replications by Newband since 1990.

Other instruments in the Newband collection are the zoomoozophone and juststrokerods, both invented by Dean Drummond, a microtonally programmed Yamaha DX711 synthesizer, a tenor violin built by Carleen Hutchins a complete set of German cowbells, Balinese angklungs and numerous Chinese cymbals and gongs. Newband performs on the Instrumentarium as well as standard Western instruments - flute, cello and percussion regularly - voices, clarinet, brass and strings as repertoire demands.

Newband recordings include: works by John Cage, Harry Partch, Dean Drummond, Joan La Barbara, Thelonius Monk, James Pugliese and Mathew Rosenblum on two Mode CD's, music by Lasse Thoresen on Aurora and music by Julia Wolfe on Point. Newband's newest CD on Music and Arts features works by Harry Partch, Dean Drummond, Anne Le Baron and Elizabeth Brown.

The Newband Instrumentarium includes the Harry Partch Instrument Collection, Dean Drummond's zoomoozophone and juststrokerods, and a large assortment of exotic percussion. The Harry Partch Instrument Collection includes all of the instruments built by the composer-inventor during the period 1930-1974, as well as several instruments replicated by the Harry Partch Foundation between 1974 and 1984 and several replications by Newband since 1990. Since 1990, when the custodianship of the Partch Instrument Collection was turned over to Dean Drummond by the Harry Partch Foundation, these instruments have been located in the New York area - for the past year at Newband's studio in the Music Division of Purchase College, State University of New York, where Newband is Artist Ensemble in Residence.

Chapter 4: New Instruments

Harry Partch Instrument Collection

The following instruments from the Harry Partch Instrumentarium are featured in tonight's concert.

Bass Marimba: this large-size marimba is made from eleven huge sitka spruce blocks, resonating over organ pipes. The range is from the "C" below the bass clef to the low "B-flat" below middle "C." Partch built this instrument in 1950.

Chromelodeon: a pedal-pumped reed organ with sub-bass, adapted to play all the chromatic pitches in Harry Partch's 43-tone per octave source scale. The instrument uses a standard piano key board, brightly painted to indicate harmonic relationships between the various pitches. Partch had essentially completed this instrument by 1945. The current, improved Chromelodeon I was adapted in 1991 by the A & J Reed and Pipe Organ Service and Dean Drummond. Newband also has the original Chromelodeon I and II.

Cloud Chamber Bowls: The cloud chamber bowls themselves are sections of 12-gallon Pyrex carboys, suspended from a redwood frame on ropes. These difficult-to-find and impossible-to-tune glass gongs are played very carefully by a percussionist who risks the anguish of splintered disaster. The original bowls were found at the Radiation Laboratory of the University of California, Berkeley, and has been used as cloud-chambers to trace the paths of sub-atomic particles.

Diamond Marimba: a marimba made of Brazilian rosewood and pernambuco resonating over tubes of bamboo, this instrument is named for its diamond-shaped layout. It was built by Partch in 1946, and is painstakingly tuned to his 43-note source scale.

Harmonic Canons: There are two types. The simpler type is Harmonic Canon II; these box-like instruments have 44 strings and adjustable bridges which are uniquely configured for each piece. They are played with picks or fingers and are strikingly used in cascades of pitches. Partch built his first canon in 1945, and continued to refine the instrument into the 70's. Tonight's concert features three different harmonic canons, each with a unique tuning.

Kithara: Both Kithara I and the majestically tall Kithara II (81 inches) use 72 strings, stretched vertically, arranged into 12 sets of six strings each. The performer strums with picks or fingers, and must cover his or her territory very nimbly, since the instruments are both quite large. Pyrex rods are used on 4 of the hexads to produce moving tones, giving the instrument a sound somewhat like a cross between a bottle-neck guitar and a harp. Partch built the first kithara in 1938. The current Kithar I was built in 1972, one of his last projects. Kithara II, which is featured tonight, was built in 1954.

Surrogate Kithara: An "assistant kithara" consisting of two resonators or canons of 6 strings apiece. This small squat instrument is played by a performer seated on its built-in seat. The two canons use Pyrex rods to control pitch, and may be plucked with fingers or picks or hammered with mallets. Newband commissioned a new surrogate kithara from the California instrument builder Scott Hackleman to replicate Harry Partch's original surrogate which was built in 1953.

Dean Drummond's Instruments

Tonight's concert features one instrument invented by Dean Drummond:

Zoomoozophone: Invented in 1978, this instrument uses 129 aluminum tubes tuned to a 31 note per octave source scale. Played by one or more percussionists, this instrument is divided into 5 sections, which, laid end to end, would span a distance of 20 feet. Struck with mallets or bowed, these justly tuned bars ring with a clear pure sound until damped with the hand or a mallet.

Program Notes

The music of **Elizabeth Brown** was recently heard in venues as diverse as Lincoln Center, the Library of Congress, the Kitchen, Connecticut Early Music Festival (New Sounds for Ancient Instruments), the Smithsonian Institution (in an installation by visual artist Lorie Novak), and the Los Angeles County Museum of Art, and broadcast on NPR and WNYC's "Around New York." She is an accomplished shakuhachi player and often includes non-Western and exotic instruments in her pieces. As a flutist, she has performed worldwide with Orpheus and Philharmonia Virtuosi and has recorded for CBS Masterworks Deutsche Gramophon, CRI Musical Heritage, Opus 1 and Avant. Her own music can be heard on CRI's "Emergency Music Bang on a Can Live Vol. 11" and "The AIDS Quilt Songbook" on Harmonia Mundi. She is a native of Alabama and a graduate of the Juilliard School. "Archipelago" is scored for solo cello, flute, and alto flute, zoomoozophone, diamond marimba, surrogate kithara and Yamaha DX711 synthesizer. Each instrument is distinct in timbre and playing technique; the piece seeks to create an underlying architecture which allows them to speak together, as islands in an archipelago are part of the same underlying land mass.

The instruments' microtonal possibilities allow heightened consonant harmonies as well as very subtle, gradual modulations, which evoke geological transformations evolving by small increments over great stretches of time. "Archipelago" was written for Newband in 1990 and revised in 1992. It was premiered in October of 1990 at the Miller Theater in New York City as part of New Works October, and has been performed at the Ijsbreker In Amsterdam, USArts Festival in Berlin, the Library of Congress (with a subsequent NPR Broadcast), University of Richmond, and Merkin Concert Hall in New York City.

Thelonius Monk (1920-1982) was one of the greatest jazz composers (and one of the greatest composers of any kind) and an extremely individualistic pianist. He played with Charlie Parker, Dizzy Gillespie and Miles Davis among others and directed his own combos for many years.

There is some confusion regarding the authorship of "Round Midnight" (sometimes also called "Round About Midnight" since some sources credit Thelonius Monk, others credit Monk with Cootie Williams and still others credit Monk, Williams and someone named Hanighen. While Williams was the leader of the band that first recorded the ballad in 1944, there is no doubt that Monk is the main composer.

"Since inventing the 31-tone zoomoozophone in 1978, I have been interested in arranging existing music to take advantage of the microtonal possibilities. "Round Midnight" has been one of my favorite tunes since I acquired a recording of it when I was a teenager. That Version, recorded in 1956 by Miles Davis with John Coltrane, Red Garland, Paul Chambers and Philly Joe Jones, has continued to be

Chapter 4: New Instruments

my favorite, but I have made no attempt to emulate it; the singularity of those musicians renders such an attempt as futile anyway. Rather I have attempted a quieter, dreamy rendition which allows some of the chords to be more purely intune than they can be in equal temperament while other chords and melodic notes are microtonally altered to extend the possibilities implied by Monk's harmonies. Thus there are two distinctly different E flats, F's, and B-flats and two places where I sneak in the quartertone above C. The first of two choruses is a presentation of the simplest harmonic essentials. In the second chorus, the tune appears with full harmonization and accompaniment." -Dean Drummond

This arrangement of "Round Midnight" was premiered by Newband at De Ijsbreker in Amsterdam, 11-4-90.

Dean Drummond is the composer of numerous works utilizing newly invented instruments, synthesizers, microtones, new techniques for winds and strings, and large ensembles of specialized percussion. He is also a conductor, multi-instrumentalist, music instrument inventor, Co-director of Newband, and Director of the Harry Partch Music Instrument Collection.

His music has been performed internationally and is recorded on two Mode CD's. He has conducted/performed music by other composers on Columbia, Mode and Aurora. His compositions have received numerous awards including a Guggenheim Fellowship, Koussevitzky Foundation, Fromm Foundation, Cary Trust Commission, New York State Council on the Arts Commission Award, National Endowment for the Arts Composers Fellowships and Opera/Music Theater Commission, the New York Foundation for the Arts Fellowship and 2nd Prize in the John F. Kennedy Friedheim Award for Chamber Music.

Born January 22, 1949 in Los Angeles, Drummond received degrees from the University of Southern California and California Institute of the Arts, where he studied composition with Leonard Stein. While a student, he worked as musician for and assistant to Harry Partch. As a musical instrument inventor, he has created two new instruments, the zoomoozophone and the justrokers.

Drummond is currently Artist-in-Residence at Purchase College, State University of New York. He is currently composing a chamber opera and a duet for violin and synthesizer commissioned by the McKim Fund of the Library of Congress.

"Before the Last Laugh" developed as a "spinoff" from a much larger work, "The Last Laugh." The latter work is a live Soundtrack for the 1925 silent film of the same name. The materials used in "Before the Last Laugh" are all from the first parts of the film, specifically the hotel scenes, featuring fast-paced city life, much hustling and bustling mixed with a sense of somber doom - since for he/she who has the last laugh, things get worse before they get better. "Before the Last Laugh" is also designed as a "practical" piece - thus the small instrumental (for Newband).

"Before the Last Laugh" explores harmonies that feature the 21st and 33rd harmonics as well as undertonalities (the inversions of overtone series type chords) and scales combining high harmonics and undertonalities.

Toru Takemitsu (1930-1996) finds his inspiration in the environment of the traditional Japanese garden, in which certain elements of nature are immutable while others are subject to the transformations of time. Since 1964 Takemitsu has expressed a particular interest in composing works that either incorporate traditional Japanese instruments - in particular the biwa (silk-stringed lute) and the shakuhachi - or, in the case of works conceived for conventional European ensembles, are grounded on Japanese aesthetic values. Consequently, Takemitsu's writing for the Western flute (a favored instrument in his works) incorporates the wide range of microtonal and timbral subtleties characteristic of traditional shakuhachi performance practices. Takemitsu's fascination with the subject of water in all its manifestations has been a continuing theme in his works, dating back to the beginning of his career with his electronic work, "Water Music" (1963). In "Toward The Sea III" the very work "sea" is given a musical representation through the use of a recurring motif formed by the notes E flat - E - A. As the titles of the individual movements, that of the first, "The Night," with its sustained flute tones set against the mysterious murmurings of the harp (suggestive of the rustling of leaves swept by an offshore breeze) is self-explanatory. Listening to the second movement, "Moby Dick," one may imagine Herman Melville's great white whale struggling to rise from the depths, while the finale, "Cape Cod," conjures up a vision of the glistening Atlantic waters off the coast of New England.

John Coltrane (1926-1967) was one of the major innovators of contemporary jazz. A saxophonist (tenor and soprano) and composer, Coltrane began his career in big bands, played with Miles Davis in the late 1950s, and formed his own quartet in 1960. Extending the harmonic, melodic and rhythmic languages of jazz, Coltrane often created incredibly sustained periods of improvisation within the confines of a single chord or scale pattern. His influence on other modern jazz artists was great and the quartet he led during the 60's was one of the most important bands in the history of jazz. In addition to being a great improviser, he created many original jazz compositions of which "Naima" is one of the loveliest. Dean Drummond's arrangement of "Naima," like his arrangement of "Round Midnight" is an attempt to explore the microtonal possibilities inherent in the chord structure of an original jazz ballad.

Harry Partch (1901-1974) is probably the closest thing the current American microtonal movement has to a founder. He is certainly the founder of modern Just Intonation - the retuning of old and the building of new instruments tuned in true rather than tempered intervals, and the expansion of the musical scale to include overtones approximated by the conventional 12-tone tempered scale. The son of missionary parents, Harry Partch was exposed to a

wide range of the world's music as a child, even though he spent time growing up in isolated areas of the American Southwest. He became self-reliant, studious, prodigiously creative, non-conventional and courageous — qualities often attributed to the romanticized American maverick personality. In 1930 he broke with Western European tradition and forged a new music based on a more primal, corporeal integration of the elements of speech, rhythm and performance using the principles of acoustic resonance and just intonation. He became a theorist, an inventor of musical instruments and a brilliant spokesman for his ideas. Living on the fringes of society, he was ignored by the standard musical institutions, although after reading some of his more pointed criticisms of musical culture one can understand how his presence might have disrupted the smooth indoctrination of good musical soldiers. He threw down the gauntlet on concert traditions, the roles of the performer and composer, the role of music in society, the 12-tone equal-temperament scale and the concept of "pure" or abstract music. His body of work is intellectually rigorous, sensually alluring and emotionally powerful. When well performed, his music reveals the guiding hand of a nuanced social poet the likes of which 20-century audiences have barely ever glimpsed. Between 1930 and 1974, Partch composed six large-scale music theatre works and numerous chamber works, with and without voice.

Castor and Pollux - "A Dance for the Twin Rhythms of Gemini" scored for: Kithara II, Surrogate Kithara, Cloud-Chamber Bowls, Harmonic Canon II, Bass Marimba, Diamond Marimba. A story of seduction, birth, and an ascent into the stars, this dance score only follows the story of the famous twins up to their birth, or more accurately, their hatching from an egg. (Daddy was a swan), it was originally conceived as a more optimistic antidote to Partch's dance-drama based on the tragic Oedipus Rex. The work is in two large parts, as each twin is handled separately, first Castor, then Pollux. Both halves of the work consist of three duos in sequence: the Conception, the Seduction, and the Incubation. In the fourth and final section of each half, Delivery from the Egg, the duos are played simultaneously, a musical triple exposure.

John Sumerlin
George Gonceonto
Ed Markward
Edward Stahowiak, Graphic Artist
Katie Carlson, House Manager
RIC News and Public Relations Office
Performing Arts Series Staff
Russ Monaghan and the Roberts Auditorium Staff
Members of the Performing and
Fine Arts Advisory Committee
Members of the Performing and
Fine Arts Commission

RIC Dining Services
RIC Mailroom Staff
RIC Physical Plant and Housekeeping Staff
Dr. John Nazarian, President of
Rhode Island College
Dr. Gary Penfield,
Vice President of Student Affairs
Dr. Richard Wiener, Dean,
Faculty of Arts and Sciences
Channing Gray, Providence Journal
Norm Jagolinzor, WLKW